## **CLAIMS**

1. A sulphamate compound suitable for use as an inhibitor of oestrone sulphatase, wherein the compound is a sulphamate compound having Formula IV;

$$\begin{array}{c} R_{3} \\ 0 \\ R_{4} \\ 0 \\ \end{array}$$

Formula IV

5 wherein

 $R_1$  and/or  $R_2$  is a substituent other than H; wherein  $R_1$  and  $R_2$  may be the same or different but not both being H;

each of  $R_3$  and  $R_4$  is independently selected from H, alkyl, cycloalkyl, alkenyl and aryl, wherein at least one of  $R_3$  and  $R_4$  is H; and

- 10 Y is a suitable linking group.
  - 2. A sulphamate compound suitable for use as an inhibitor of oestrone sulphatase, wherein the compound is a sulphamate compound having Formula II;

Formula II

wherein

R<sub>1</sub> and optionally R<sub>2</sub> is a substituent other than H; wherein R<sub>1</sub> and R<sub>2</sub> may be the same or different;

each of R<sub>3</sub> and R<sub>4</sub> is independently selected from H, alkyl, cycloalkyl, alkenyl and aryl, wherein at least one of R<sub>3</sub> and R<sub>4</sub> is H; and

group A and ring B together are capable of mimicking the A and B rings of oestrone; and group A is additionally attached to the carbon atom at position 1 of the ring B.

3. A sulphamate compound according to claim 2 wherein the compound has the Formula IV;

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Formula IV

wherein X is a sulphamate group;  $R_1$  and/or  $R_2$  is a substituent other than H; wherein  $R_1$  and  $R_2$  may be the same or different but not both being H; and wherein Y is a suitable linking group.

- 4. A sulphamate compound according to claim 1 wherein at least one of  $R_3$  and  $R_4$  is H.
- 10 5. A sulphamate compound according to claim 2 wherein at least one of  $R_3$  and  $R_4$  is H.
  - 6. A sulphamate compound according to claim 1 wherein each of R<sub>3</sub> and R<sub>4</sub> is H.
- 15 7. A sulphamate compound according to claim 2 wherein each of R<sub>3</sub> and R<sub>4</sub> is H.
  - 8. A sulphamate compound according to claim 1 wherein Y is -CH<sub>2</sub>- or -C(O)-.
  - 9. A sulphamate compound according to claim 1 wherein Y is -C(O)-.
  - 10. A sulphamate compound according to claim 1 wherein the compound has the Formula V;

$$R_1$$

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wherein X is a sulphamate group;  $R_1$  and optionally  $R_2$  is a substituent other than H; and wherein  $R_1$  and  $R_2$  may be the same or different.

- 11. A sulphamate compound according to claim 1 wherein each of R<sub>1</sub> and R<sub>2</sub> is independently selected from H, alkyl, cycloalkyl, alkenyl, aryl, substituted alkyl, substituted cycloalkyl, substituted alkenyl, substituted aryl, a nitrogen containing group, a S containing group, or a carboxy containing group.
  - 12. A sulphamate compound according to claim 2 wherein

R<sub>1</sub> is selected from alkyl, cycloalkyl, alkenyl, aryl, substituted alkyl, substituted cycloalkyl, substituted alkenyl, substituted aryl, a nitrogen containing group, a S containing group, or a carboxy containing group, and

R<sub>2</sub> is selected from H, alkyl, cycloalkyl, alkenyl, aryl, substituted alkyl, substituted cycloalkyl, substituted alkenyl, substituted aryl, a nitrogen containing group, a S containing group, or a carboxy containing group.

- 13. A sulphamate compound according to claim 1 wherein each of  $R_1$  and  $R_2$  is independently selected from H,  $C_{1-6}$  alkyl,  $C_{1-6}$  cycloalkyl,  $C_{1-6}$  alkenyl, substituted  $C_{1-6}$  alkenyl, substituted  $C_{1-6}$  alkenyl, substituted aryl, a nitrogen containing group, a S containing group, or a carboxy group having from 1-6 carbon atoms.
- 14. A sulphamate compound according to claim 2 wherein

 $R_1$  is selected from  $C_{1-6}$  alkyl,  $C_{1-6}$  cycloalkyl,  $C_{1-6}$  alkenyl, substituted  $C_{1-6}$  alkyl, substituted  $C_{1-6}$  cycloalkyl, substituted  $C_{1-6}$  alkenyl, substituted aryl, a nitrogen containing group, a S containing group, or a carboxy group having from 1-6 carbon atoms, and

 $R_2$  is selected from H,  $C_{1-6}$  alkyl,  $C_{1-6}$  cycloalkyl,  $C_{1-6}$  alkenyl, substituted  $C_{1-6}$  alkyl, substituted  $C_{1-6}$  alkenyl, substituted aryl, a nitrogen containing group, a S containing group, or a carboxy group having from 1-6 carbon atoms.

- 5 15. A sulphamate compound according to claim 1 wherein each of R<sub>1</sub> and R<sub>2</sub> is independently selected from H, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkenyl, a nitrogen containing group, or a carboxy group having from 1-6 carbon atoms.
  - 16. A sulphamate compound according to claim 2 wherein
- R<sub>1</sub> is selected from C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkenyl, a nitrogen containing group, or a carboxy group having from 1-6 carbon atoms, and R<sub>2</sub> is selected from H, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkenyl, a nitrogen containing group, or a carboxy group having from 1-6 carbon atoms.
- 15 17. A sulphamate compound according to claim 1 wherein each of R<sub>1</sub> and R<sub>2</sub> is independently selected from H, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkenyl, NO<sub>2</sub>, or a carboxy group having from 1-6 carbon atoms.
  - 18. A sulphamate compound according to claim 2 wherein
- $R_1$  is selected from  $C_{1-6}$  alkyl,  $C_{1-6}$  alkenyl,  $NO_2$ , or a carboxy group having from 1-6 carbon atoms, and

 $R_2$  is selected from H,  $C_{1-6}$  alkyl,  $C_{1-6}$  alkenyl,  $NO_2$ , or a carboxy group having from 1-6 carbon atoms.

- 25 19. A sulphamate compound according to claim 1 wherein each of R<sub>1</sub> and R<sub>2</sub> is independently selected from H, C<sub>3</sub> alkyl, C<sub>3</sub> alkenyl, NO<sub>2</sub>, or H<sub>3</sub>CO.
  - 20. A sulphamate compound according to claim 2 wherein R<sub>1</sub> is selected from C<sub>3</sub> alkyl, C<sub>3</sub> alkenyl, NO<sub>2</sub>, or H<sub>3</sub>CO, and R<sub>2</sub> is selected from H, C<sub>3</sub> alkyl, C<sub>3</sub> alkenyl, NO<sub>2</sub>, or H<sub>3</sub>CO.

21. A sulphamate compound according to claim 1 wherein the compound is any one of the Formulae VI - IX.

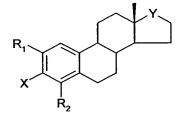
O II		R <sub>1</sub>	R <sub>2</sub>	Formula VI
	a)	n-CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	Н	1
R <sub>1</sub>	b)	Н	n-CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	
	c)	n-CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	n-CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	-
H <sub>2</sub> NSO <sub>2</sub> O				
R <sub>2</sub>				

0		R <sub>1</sub>	R <sub>2</sub>	Formula IX
	a)	-NO <sub>2</sub>	Н	1
R	b)	Н	-NO <sub>2</sub>	
	c)	-NO <sub>2</sub>	-NO <sub>2</sub>	;
H <sub>2</sub> NSO <sub>2</sub> O				
R <sub>2</sub>				

22. A sulphamate compound according to claim 2 wherein the group A/ring B combination contains one or more alkoxy substituents.

- 23. A sulphamate compound according to claim 2 wherein the group A/ring B combination contains one or more methoxy substituents.
- 24. A sulphamate compound according to claim 1 wherein R<sub>1</sub> and/or R<sub>2</sub> is an alkoxy group.
  - 25. A sulphamate compound according to claim 2 wherein  $R_1$  and/or  $R_2$  is an alkoxy group.
- 26. A sulphamate compound according to claim 1 wherein R<sub>1</sub> and/or R<sub>2</sub> is a methoxy group.
  - 27. A sulphamate compound according to claim 2 wherein  $R_1$  and/or  $R_2$  is a methoxy group.
  - 28. A sulphamate compound according to claim 1 wherein R<sub>1</sub> is an alkoxy group.
  - 29. A sulphamate compound according to claim 2 wherein  $R_1$  is an alkoxy group.
- 20 30. A sulphamate compound according to claim 1 wherein  $R_1$  is a methoxy group.
  - 31. A sulphamate compound according to claim 2 wherein  $R_1$  is a methoxy group.
- 32. A method of inhibiting steroid sulphatase activity in a patient in need thereof comprising administering a sulphamate compound having Formula IV;

Formula IV



wherein X is a sulphamate group;  $R_1$  and/or  $R_2$  is a substituent other than H; wherein  $R_1$  and  $R_2$  may be the same or different but not both being H; and wherein Y is a suitable linking group.

5 33. A method of inhibiting steroid sulphatase activity in a patient in need thereof comprising administering a sulphamate compound having Formula II;

Formula II

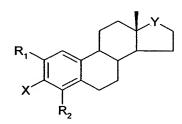
wherein X is a sulphamate group

 $R_1$  and optionally  $R_2$  is a substituent other than H; wherein  $R_1$  and  $R_2$  may be the same or different;

wherein group A and ring B together are capable of mimicking the A and B rings of oestrone; and

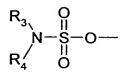
wherein group A is additionally attached to the carbon atom at position 1 of the ring B.

34. A method according to claim 33 wherein the compound has the Formula IV;



Formula IV

- wherein X is a sulphamate group; R<sub>1</sub> and/or R<sub>2</sub> is a substituent other than H; wherein R<sub>1</sub> and R<sub>2</sub> may be the same or different but not both being H; and wherein Y is a suitable linking group.
  - 35. A method according to claim 32 wherein the sulphamate group has the Formula III;



Formula III

wherein each of R<sub>3</sub> and R<sub>4</sub> is independently selected from H, alkyl, cycloalkyl, alkenyl and aryl, or together represent alkylene optionally containing one or more hetero atoms or groups in the alkylene chain.

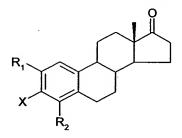
5 36. A method according to claim 33 wherein the sulphamate group has the Formula III;

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Formula III

wherein each of R<sub>3</sub> and R<sub>4</sub> is independently selected from H, alkyl, cycloalkyl, alkenyl and aryl, or together represent alkylene optionally containing one or more hetero atoms or groups in the alkylene chain.

- 10 37. A method according to claim 32 wherein at least one of R<sub>3</sub> and R<sub>4</sub> is H.
  - 38. A method according to claim 33 wherein at least one of R<sub>3</sub> and R<sub>4</sub> is H.
  - 39. A method according to claim 32 wherein each of R<sub>3</sub> and R<sub>4</sub> is H.
  - 40. A method according to claim 33 wherein each of R<sub>3</sub> and R<sub>4</sub> is H.
  - 41. A method according to claim 32 wherein Y is -CH<sub>2</sub>- or -C(O)-.
- 20 42. A method according to claim 32 wherein Y is -C(O)-.
  - 43. A method according to claim 32 wherein the compound has the Formula V;



Formula V

wherein X is a sulphamate group;  $R_1$  and optionally  $R_2$  is a substituent other than H; and wherein  $R_1$  and  $R_2$  may be the same or different.

44. A method according to claim 32 wherein each of R<sub>1</sub> and R<sub>2</sub> is independently selected from H, alkyl, cycloalkyl, alkenyl, aryl, substituted alkyl, substituted cycloalkyl, substituted alkenyl, substituted aryl, a nitrogen containing group, a S containing group, or a carboxy containing group.

## 45. A method according to claim 33 wherein

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R<sub>1</sub> is selected from alkyl, cycloalkyl, alkenyl, aryl, substituted alkyl, substituted cycloalkyl, substituted alkenyl, substituted aryl, a nitrogen containing group, a S containing group, or a carboxy containing group, and

R<sub>2</sub> is selected from H, alkyl, cycloalkyl, alkenyl, aryl, substituted alkyl, substituted cycloalkyl, substituted alkenyl, substituted aryl, a nitrogen containing group, a S containing group, or a carboxy containing group.

46. A method according to claim 32 wherein each of  $R_1$  and  $R_2$  is independently selected from H,  $C_{1-6}$  alkyl,  $C_{1-6}$  cycloalkyl,  $C_{1-6}$  alkenyl, substituted  $C_{1-6}$  alkyl, substituted  $C_{1-6}$  alkenyl, substituted aryl, a nitrogen containing group, a S containing group, or a carboxy group having from 1-6 carbon atoms.

## 47. A method according to claim 33 wherein

 $R_1$  is selected from  $C_{1-6}$  alkyl,  $C_{1-6}$  cycloalkyl,  $C_{1-6}$  alkenyl, substituted  $C_{1-6}$  alkyl, substituted  $C_{1-6}$  alkenyl, substituted aryl, a nitrogen containing group, a S containing group, or a carboxy group having from 1-6 carbon atoms, and

 $R_2$  is selected from H,  $C_{1-6}$  alkyl,  $C_{1-6}$  cycloalkyl,  $C_{1-6}$  alkenyl, substituted  $C_{1-6}$  alkyl, substituted  $C_{1-6}$  alkenyl, substituted aryl, a nitrogen containing group, a S containing group, or a carboxy group having from 1-6 carbon atoms.

- 48. A method according to claim 32 wherein each of  $R_1$  and  $R_2$  is independently selected from H,  $C_{1-6}$  alkyl,  $C_{1-6}$  alkenyl, a nitrogen containing group, or a carboxy group having from 1-6 carbon atoms.
- 5 49. A method according to claim 33 wherein

R<sub>1</sub> is selected from C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkenyl, a nitrogen containing group, or a carboxy group having from 1-6 carbon atoms, and

R<sub>2</sub> is selected from H, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkenyl, a nitrogen containing group, or a carboxy group having from 1-6 carbon atoms.

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- 50. A method according to claim 32 wherein each of  $R_1$  and  $R_2$  is independently selected from H,  $C_{1-6}$  alkyl,  $C_{1-6}$  alkenyl,  $NO_2$ , or a carboxy group having from 1-6 carbon atoms.
- 15 51. A method according to claim 33 wherein

 $R_1$  is selected from  $C_{1-6}$  alkyl,  $C_{1-6}$  alkenyl,  $NO_2$ , or a carboxy group having from 1-6 carbon atoms, and

R<sub>2</sub> is selected from H, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkenyl, NO<sub>2</sub>, or a carboxy group having from 1-6 carbon atoms.

- 52. A method according to claim 32 wherein each of R<sub>1</sub> and R<sub>2</sub> is independently selected from H, C<sub>3</sub> alkyl, C<sub>3</sub> alkenyl, NO<sub>2</sub>, or H<sub>3</sub>CO.
- 53. A method according to claim 33 wherein
- 25 R<sub>1</sub> is selected from C<sub>3</sub> alkyl, C<sub>3</sub> alkenyl, NO<sub>2</sub>, or H<sub>3</sub>CO, and R<sub>2</sub> is selected from H, C<sub>3</sub> alkyl, C<sub>3</sub> alkenyl, NO<sub>2</sub>, or H<sub>3</sub>CO.
  - 54. A method according to claim 32 wherein the compound is any one of the Formulae VI IX.

_ Q		R <sub>1</sub>	R <sub>2</sub>	Formula VI
	a)	n-CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	Н	1
R <sub>1</sub>	b)	Н	n-CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	
	c)	n-CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	n-CH <sub>2</sub> CH <sub>2</sub> CH <sub>3</sub>	
H <sub>2</sub> NSO <sub>2</sub> O				
$R_2$			!	

0		R <sub>1</sub>	R <sub>2</sub>	Formula VII
	a)	-CH <sub>2</sub> CH=CH <sub>2</sub>	Н	
R	b)	Н	-CH <sub>2</sub> CH=CH <sub>2</sub>	
	c)	-CH <sub>2</sub> CH=CH <sub>2</sub>	-CH <sub>2</sub> CH=CH <sub>2</sub>	
H <sub>2</sub> NSO <sub>2</sub> O				
Ŕ <sub>2</sub>				

, O		R <sub>1</sub>	R <sub>2</sub>	Formula IX
R <sub>1</sub>	a)	-NO <sub>2</sub>	Н	
	b)	Н	-NO <sub>2</sub>	
	c)	-NO <sub>2</sub>	-NO <sub>2</sub>	
H <sub>2</sub> NSO <sub>2</sub> O				
Ŕ <sub>2</sub>				

- 5 55. A method according to claim 33 wherein the group A/ring B combination contains one or more alkoxy substituents.
  - 56. A method according to claim 33 wherein the group A/ring B combination contains one or more methoxy substituents.

- 57. A method according to claim 32 wherein R<sub>1</sub> and/or R<sub>2</sub> is an alkoxy group.
- 58. A method according to claim 33 wherein R<sub>1</sub> and/or R<sub>2</sub> is an alkoxy group.
- 5 59. A method according to claim 32 wherein R<sub>1</sub> and/or R<sub>2</sub> is a methoxy group.
  - 60. A method according to claim 33 wherein R<sub>1</sub> and/or R<sub>2</sub> is a methoxy group.
  - 61. A method according to claim 32 wherein  $R_1$  is an alkoxy group.

- 62. A method according to claim 33 wherein  $R_1$  is an alkoxy group.
- 63. A method according to claim 32 wherein  $R_1$  is a methoxy group.
- 15 64. A method according to claim 33 wherein  $R_1$  is a methoxy group.